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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,680	06/29/2001	Brad A. Armstrong	29	8703

7590
Brad A. Armstrong
P.O. Box 1419
Paradise, CA 95967

07/31/2003

EXAMINER

ENATSKY, AARON L

ART UNIT	PAPER NUMBER
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3713

DATE MAILED: 07/31/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,680

Applicant(s)

ARMSTRONG, BRAD A.

Examiner

Aaron L Enatsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Withdrawal of Allowance

Applicant is advised that the Notice of Allowance mailed 4/23/2002 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Prosecution on the merits of this application is reopened on claims 1-47 considered unpatentable for the reasons indicated below: Newly discovered references make the current claims unpatentable. See the rejection below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-17, 20-24, 30-31, 39, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Unexamined Utility Model Application Publication No. 5-87760 to Furukawa ("Furukawa"). In regard to claims 1-3, 6-7, 16-17, 20, 23, 30-31, and 39, Furukawa teaches a game machine capable of driving a display apparatus (8:0011 hereinafter the notation relates to "page num : paragraph num"), a game controller housing a four-way rocker and a plurality of player depressible buttons that are useable with two hands (Fig. 1), pressure sensitive

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sensors contained in the controller housing for detecting operator input and generating an analog representation of the force used (5:0006-0007), a means for outputting pressure sensitive signal to game machine (Fig. 1), electrodes disposed on a substrate (7:0009), a rubber dome cap positioned over electrodes (Fig. 2 and 3) that is depressible with applied pressure (3:0002), the dome cap having a convex shaped portion (Fig. 2 and 3), and the dome cap having an underside convex extrusion over electrodes (Fig. 2 and 3).

In regard to claims 8, Furukawa teaches a dome cap positioned over a first and second circuit trace, where the circuit traces are in close proximity to another (Fig. 2-3).

In regard to claim 9, Furukawa teaches conductive material positioned to contact circuit traces with applied pressure (Fig. 2).

In regard to claims 10 and 31, Furukawa teaches a convex portion positioned to press against circuit trace material (Fig. 2-3).

In regard to claim 11, Furukawa teaches the convex portion is deformable with pressed against circuit trace material (5:0007).

In regard to claim 12, Furukawa teaches a left and right hand area of the housing (Fig. 1).

In regard to claim 13 and 42, Furukawa teaches a four-way rocker exposed in the left hand area (Fig. 1).

In regard to claims 14-15, Furukawa teaches four analog sensors associates with the four-way rocker, where each section of the rocker has the resilient dome cap (6:0009).

In regard to claims 21-22, Furukawa teaches four analog sensors, which allows at least one device and one electricity-manipulating device to be separate and one device to be a single device.

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In regard to claim 24, Furukawa teaches variable conductance according to the degree of pressing force (5:0007).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 18-19, 25-29, 32-38, 40-41, and 43-47, are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claims 1-3, 6-17, 20-24, 30-31, 39, and 42 above, and further in view of Japanese Unexamined Patent Application Publication No.7-302159 to Terajima et al. ("Terajima"). In regard to claims 18, 25-26, 32-36, and 43-44 Furukawa teaches the limitations as discussed above, but does not expressly teach contact electrode design layout. Terajima teaches interdigitated circuit traces where different level of pressure causes more surface area of the convex button underside to contact additional circuit traces (Fig. 10). One would be motivated to modify Furukawa to use interdigitated circuit traces to insure that different level of pressure exerted on the convex button underside would allow the pressure variance to be detectable and useable as additional input. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Furukawa to use the interdigitated circuit traces taught by Terajima as another method for guaranteeing pressure sensitive input.

In regard to claim 19, Furukawa in view of Terajima teaches the limitations as discussed above including a plurality of buttons disposed on the right hand side of the game controller, but

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does not teach at least four buttons in the same area. However, the exact number of buttons lacking criticality, duplication of that which is known in the art is considered well within the capabilities of one of ordinary skill. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have at least four buttons disposed in the controller to increase the player input variance.

In regard to claims 27-29, Furukawa in view of Terajima teaches the limitations as disclosed above. Additionally, Terajima teaches an active integrated circuit for converting analog data to digital data (Fig. 5). The converter serves to define a micro-controller and an ASIC.

In regard to claims 37-38, 40-41, 45, and 47, Furukawa in view of Terajima teaches the limitations as disclosed above, but is silent with respect to the appendage intended for use with the handheld controller. However, the specific appendage used to operate the handheld controller, lacking criticality, would not serve to further limit the device or provide distinctness over existing prior art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow an operator use any appendage to operate device controls.

In regard to claim 46, Furukawa in view of Terajima teaches the limitations as disclosed above and additionally Terajima teaches a deformable surface having an apex (Fig. 10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron L Enatsky whose telephone number is 703-305-3525. The examiner can normally be reached on 8:00 - 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 703-308-4119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Aaron Enatsky
April 29, 2003



VALENCIA MARTIN-WALLACE
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